UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/585,765	12/17/2007	Wilhelm Baruschke	016906-0527	7818

22428 7590 09/22/2011

FOLEY AND LARDNER LLP
SUITE 500
3000 K STREET NW
WASHINGTON, DC 20007

EXAMINER	
RUBY, TRAVIS C	
ART UNIT	PAPER NUMBER
3785	
MAIL DATE	DELIVERY MODE
09/22/2011	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/585,765	BARUSCHKE ET AL.	
	Examiner	Art Unit	
	TRAVIS RUBY	3785	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 March 2011*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

5)☒ Claim(s) *1 and 27-51* is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6)☐ Claim(s) _____ is/are allowed.

7)☒ Claim(s) *1 and 27-51* is/are rejected.

8)☐ Claim(s) _____ is/are objected to.

9)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

10)☒ The specification is objected to by the Examiner.

11)☒ The drawing(s) filed on *12 July 2006* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

12)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☒ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/29/2011 has been entered.

Status of Claims

2. The status of the claims as filed in the reply dated 3/29/2011 are as follows:

Claims 2-26 are cancelled by the applicant;

Claims 1, 27-51 are pending.

Priority

3. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in 10/585,765 on October 16, 2006. It is noted, however, that applicant has not filed a certified copy of the 10/585,765 application as required by 35 U.S.C. 119(b).

Drawings

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "3" has been used to designate both a metering device in Figure 6b and a flap in Figure 3. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing

sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

5. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: ref 3 in Figure 3. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

6. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old

apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:
(1) if a machine or apparatus, its organization and operation;
(2) if an article, its method of making;
(3) if a chemical compound, its identity and use;
(4) if a mixture, its ingredients;
(5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

7. The abstract of the disclosure is objected to because it uses phrases which can be implied and does not adequately describe that which is new in the art to which the invention pertains.

Correction is required. See MPEP § 608.01(b).

8. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: "Vehicle Air Vent with Air Outflow Pattern Control" or something similar.

Claim Rejections - 35 USC § 112

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 1 and 27-51 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 and 38 recites "wherein an outflow characteristic of the at least one air outflow vent is configured to be adjusted between a first airflow with a first characteristic having a scatter character and a second airflow with a second characteristic having a spot character, and wherein the at least one air outflow vent includes a metering device configured to meter the first and second airflows prior to exiting through the outflow opening to form the airstream". It is not clear from the limitations as to whether there are two distinct and separate air streams in a single vent or whether there is a single air stream that is adjusted to two different airflow patterns located in a single vent. For examination purposes, the limitations will be interpreted as a single air stream that is adjusted to two different airflow patterns located in a single vent.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claims 1 and 27-51 are rejected under 35 U.S.C. 102(b) as being anticipated by Hara et al (US4949624, as previously cited).

Re Claim 1. Hara discloses a heating, ventilating or air-conditioning system for a vehicle, comprising:

a housing (20) that includes:

at least one heat exchanger (30, 31) configured to condition air in the vehicle; and

a blower (28) with at least one air duct (23) configured to feed the conditioned air,

wherein the at least one air duct includes at least one air outflow vent (34) that is configured to receive the conditioned air and to distribute an air stream through an outlet opening (34a) into a passenger compartment (3) of the vehicle (Figure 2; Column 4 line 36 to Column 5 line 32),

wherein an outflow characteristic of the at least one air outflow vent is configured to be adjusted between a first airflow with a first characteristic having a scatter character (Column 5 lines 57-64) and a second airflow with a second characteristic having a spot character (Column 5 lines 49-57), and

wherein the at least one air outflow vent includes a metering device (4) configured to meter the first and second airflows prior to exiting through the outflow opening to form the airstream (Figure 3a, 3b; The louvers 4 can meter the amount of air leaving the vent).

Re Claim 27. Hara discloses a settable swirl of the air stream is configured to change the outflow characteristic (Figure 3a-b, 4a, Table 1; Column 5 lines 34-64; Column 8 lines 37-68).

Re Claim 28. Hara discloses the settable swirl is a maximum value for the scatter character and a minimum value for the spot character (Figure 3a-b, 4a, Table 1; Column 5 lines 34-64; Column 8 lines 37-68).

Re Claim 29. Hara discloses the outflow characteristic is open-loop controlled or closed-loop controlled as a function of at least one parameter and/or at least one operating state (Figure 4; Column 6 lines 4-25 & 57-61 discloses various sensors used to regulate the system) .

Re Claim 30. Hara discloses the outflow characteristic is open-loop controlled or closed-loop controlled as a function of at least one parameter (Tic) as a deviation from a setpoint value or as a difference from the setpoint value (Figure 4 steps 118, 120, and 122; Column 7 lines 8-15 & 44-60; Table 1).

Re Claim 31. Hara discloses the outflow characteristic is open-loop controlled or closed-loop controlled as a function of a parameter field or characteristic diagram of a plurality of parameters (Figure 4a).

Re Claim 32. Hara discloses the at least one parameter is a variable of a passenger compartment temperature (Tic), solar radiation (S), an external temperature (Ta) (Column 6 lines 4-35; Figure 4).

Re Claim 33. Hara discloses the outflow characteristic is set to the spot character when there is a first deviation of an actual value from a first setpoint value (Figure 4a step 116 "Yes" and 124; Table 1), is set to a scatter character when there is a second deviation of an actual value from a second setpoint value (Figure 4a step 122 "No" and 126; Table 1), and is set to an intermediate position between the spot character and scatter character for actual values between the first setpoint value and the second setpoint value (Figure 4a step 122 "Yes" and 128; Table 1).

Re Claim 34. Hara discloses a maximum amount of air flows out of the at least one airflow vent when the outflow characteristic is the second characteristic with the spot character (Figure 4a, Table 1).

Re Claim 35. Hara discloses a minimum amount of air flows out of the at least one airflow vent when the outflow characteristic is the first characteristic with the scatter character (Figure 4a, Table 1).

Re Claim 36. Hara discloses the at least one air outflow vent is a ventilation air outflow vent (34) (Figure 2).

Re Claim 37. Hara discloses the at least one air outflow vent is in a trim area or a pillar area of the passenger compartment (Figure 2; the dashboard is a piece of trim of the passenger compartment).

Re Claim 38. Hara discloses a method for controlling a heating, ventilating or air-conditioning system for a vehicle (Figure 4a-b) including

a housing (20) that includes: at least one heat exchanger (30, 31) configured to condition air in the vehicle; and a blower (28) with at least one air duct (23) configured to feed the conditioned air, wherein the at least one air duct includes at least one air outflow vent (34) that is configured to receive the conditioned air and to distribute an air stream through an outlet opening (34a) into a passenger compartment (3) of the vehicle (Figure 2; Column 4 line 36 to Column 5 line 32), wherein an outflow characteristic of the at least one air outflow vent is configured to be adjusted between a first airflow with a first characteristic having a scatter character (Column 5 lines 57-64) and a second airflow with a second characteristic having a spot character (Column 5 lines 49-57), and wherein the at least one air outflow vent includes a metering device (4) configured to meter the first and second airflows prior to exiting through the outflow opening to form the airstream (Figure 3a, 3b; The louvers 4 can meter the amount of air leaving the vent); comprising:

sensing at least one actual value (Tic) (Figure 4a; Column 7 lines 2-7;

comparing the at least one actual value with at least one setpoint value (Tset) (Figure 4a; Column 7 lines 8-15);

actuating an actuator element (8) of the at least one air outflow vent (Figure 3a-b; Column 8 lines 30-68); and

setting the outflow characteristic of the at least one air outflow vent (Figure 4a steps 124, 126, 128).

Re Claim 39. Hara discloses the outflow characteristic is open-loop controlled or closed-loop controlled as a function of at least one parameter (Figure 4; Column 6 lines 4-25 & 57-61 discloses various sensors used to regulate the system).

Re Claim 40. Hara discloses keeping the outflow characteristic constant at the second characteristic as a function of the at least one parameter starting from an initial value until a first parameter value is reached; then automatically changing the outflow characteristic continuously or in discrete increments until the first characteristic at a second parameter value is reached (Figures 4a-b; Column 7 lines 44 - Column 8 line 56; Table 1).

Re Claim 41. Hara discloses automatically changing the outflow characteristic continuously or in discrete increments, after the second parameter value is reached, to a third outflow setting until a third parameter value is reached (Figures 4a-b; Column 7 lines 44 - Column 8 line 56; Table 1).

Re Claim 42. Hara discloses the first, second, and/or third parameter values are defined as a function of a characteristic diagram (Figures 4a-4b; Table 1).

Re Claim 43. Hara discloses the third parameter value is a predetermined value and wherein the method further comprises keeping the outflow characteristic constant when the third parameter value is reached (Figures 4a-4b; Table 1).

Re Claim 44. Hara discloses the at least one parameter is a temperature parameter (Tic) and/or a time parameter (Figure 4a-4b; Column 6 lines 4-35).

Re Claim 45. Hara discloses the temperature parameter is a passenger compartment air temperature (Tic), an external air temperature (Ta) (Figure 4a-4b; Column 6 lines 4-35).

Re Claim 46. Hara discloses the outflow characteristic is open-loop controlled or closed-loop controlled as a function of a deviation of the at least one actual value from the at least one setpoint value (Figure 4 steps 118, 120, and 122; Column 7 lines 8-15 & 44-60; Table 1).

Re Claim 47. Hara discloses changing the outflow characteristic of the at least one air outflow vent according to a chronologically predetermined profile (Figure 4a-b; Table 1).

Re Claim 48. Hara discloses the outflow characteristic is the second characteristic having the spot character or a directed outflow (Figure 4a; Column 8 lines 29-36).

Re Claim 49. Hara discloses the outflow characteristic is the first characteristic having the scatter character or a diffuse outflow (Figure 4a; Column 8 lines 37-48).

Re Claim 50. Hara discloses a time for starting a sequence of the method is defined by switching on the heating, ventilating or air-conditioning system or by activating the vehicle (Figure 4a-b; Column 9 lines 19-51; Column 6 lines 62-68).

Re Claim 51. Hara discloses wherein there is sufficient heating power available to permit targeted, punctual heating at the time for starting the sequence of the method (Figure 4a-b; Column 4 lines 59-68; Column 9 lines 19-51; Column 6 lines 62-68).

Response to Arguments

13. Applicant's arguments filed 3/29/2011 have been fully considered but they are not persuasive.

Applicant argues that the prior art of record Hara fails to disclose a metering device and that the airflow is modified prior to exiting through the vent. The examiner traverses this argument. Hara illustrates in Figures 2 and 3a that the outlet vent 34a comprises louver members 5 that modifies and meters the airflow prior to exiting the louver window 4 and the outlet vent 34a. The louver members 5 will meter the airflow prior to exiting the outlet vent. Thus it can be seen that Hara does disclose a metering device and modifying the airflow prior to exiting through the vent.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TRAVIS RUBY whose telephone number is (571)270-5760. The examiner can normally be reached on Monday-Friday 9:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Swann can be reached on 571-272-7075. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Travis Ruby/
Examiner, Art Unit 3785

/Ljiljana (Lil) V. Ciric/
for Judy Swann, SPE of Art Unit 3785